



## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of  
Invention

ELECTRICAL BIAS DURING WAFER EXIT FROM  
ELECTROLYTE BATH

Application Number: 10/823840



Confirmation Number: 5525

First Named Applicant: DMITRY LUBOMIRSKY

Attorney Docket Number: AMAT8389

Search string: ( 6340633 or 6344419 or 6349633 or 6350366  
or 6374837 or 6391166 or 6395101 or 6399479  
or 6409903 or 6423636 or 6432821 or 6432832  
or 6440291 or 6550291 or 6551484 or 6551488  
or 6557237 or 6565729 or 6571657 or 6582578  
or 6585876 or 6613214 or 6632345 or 6662673  
or 20010015321 or 20020000380 ),pn.

### US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
<input checked="" type="checkbox"/>	1	6340633	2002-01-22	LOPATIN, ET AL.		438	625
<input type="checkbox"/>	2	6344419	2002-02-05	FORSTER, ET AL.		439	758
<input type="checkbox"/>	3	6349633	2002-02-26	INAKUMA, ET AL.		99	348
<input type="checkbox"/>	4	6350366	2002-02-26	LANDAU, ET AL.		205	182
<input type="checkbox"/>	5	6374837	2002-04-23	SCRANTON, ET AL.		134	161
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<input type="checkbox"/>	13	6440291	2002-08-27	HENRI, ET AL.		68	12.26
<input checked="" type="checkbox"/>	14	6550291	2003-04-22	UHLIN, ET AL.		205	96
<input checked="" type="checkbox"/>	15	6551484	2003-04-22	HEY, ET AL.		205	157



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ZM	16	6551488	2003-04-22	HEY, ET AL.	205	157
	17	6557237	2003-05-06	OLGADO	29	592.1
	18	6565729	2003-05-20	CHEN, ET AL.	205	82
	19	6571657	2003-06-03	OLGADO, ET AL.	74	490.02
	20	6582578	2003-06-24	DORDI, ET AL.	205	80
	21	6585876	2003-07-01	DORDI, ET AL.	205	148
	22	6613214	2003-09-02	DORDI, ET AL.	205	118
✓	23	6632345	2003-10-14	CHEN	205	182
ZM	24	6662673	2003-12-16	OLGADO	74	490.01

## US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
ZM	1	20010015321	2001-08-23	REID, ET AL.		205	103
ZM	2	20020000380	2002-01-03	GRAHAM, ET AL.		205	102

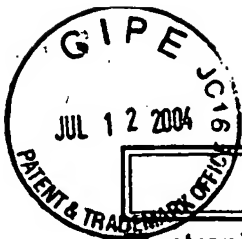
## Remarks

Note: Remarks are not for responding to an office action.

NO FEE DUE - FILED BEFORE 1ST OA - 3 OF 3

## Signature


Examiner Name	Date
/Zulmariam Mendez/	05/17/2007



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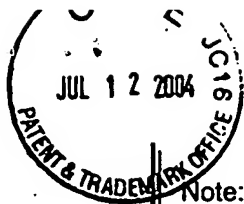
Stylesheet Version v18.0

Title of Invention	ELECTRICAL BIAS DURING WAFER EXIT FROM ELECTROLYTE BATH						
Application Number:		10/823840					
Confirmation Number:		5525					
First Named Applicant:		DMITRY LUBOMIRSKY					
Attorney Docket Number:		AMAT8389					
Search string:		( 5368711 or 5377708 or 5384640 or 5415890 or 5429733 or 5447615 or 5454930 or 5516412 or 5516414 or 5528118 or 5608943 or 5625170 or 5651865 or 5670034 or 5705223 or 5718813 or 5723028 or 5730890 or 5752143 or 5838121 or 5885469 or 6024856 or 6071388 or 6074544 or 6093291 or 6133061 or 6162344 or 6174425 or 6197181 or 6179983 or 6203582 or 6203684 or 6210555 or 6224737 or 6251236 or 6254760 or 6258220 or 6261433 or 6261733 or 6267853 or 6277263 or 6290833 or 6303014 or 6319384 or 6328410 ).pn.					
US Patent Documents							
Note: Applicant is not required to submit a paper copy of cited US Patent Documents							
init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
ZM	1	5368711	1994-11-29	PORIS		204	193
	2	5377708	1995-01-03	BERGMAN, ET AL.		134	105
	3	5384640	1995-01-24	WONG		356	437
	4	5415890	1995-05-16	KLOIBER, ET AL.		427	242
	5	5429733	1995-07-04	ISHIDA		204	224
	6	5447615	1995-09-05	ISHIDA		204	224
	7	5454930	1995-10-03	MIURA, ET AL.		205	159
	8	5516412	1996-05-14	ANDRICACOS, ET AL.		204	224
	9	5516414	1996-05-14	GLAFENHEIN, ET AL.		205	50
	10	5528118	1996-06-18	LEE		318	568.17
ZM	11	5608943	1997-03-11	KONISHI, ET AL.		15	302



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ZM	12	5625170	1997-04-29	PORIS	177	50
	13	5651865	1997-07-29	SELLERS	204	192.13
	14	5670034	1997-09-23	LOWERY	205	143
	15	5705223	1998-01-06	BUNKOFSKE	427	240
	16	5718813	1998-02-17	DRUMMOND, ET AL.	204	192.12
	17	5723028	1998-03-03	PORIS	204	231
	18	5730890	1998-03-24	BICKFORD, ET AL.	216	87
	19	5752143	1998-05-12	WAYMAN	399	248
	20	5838121	1998-11-17	FAIRBAIRN, ET AL.	318	45
	21	5885469	1999-03-23	KHOLODENKO, ET AL.	214	11
	22	6024856	2000-02-15	HAYDU, ET AL.	205	84
	23	6071388	2000-06-06	UZOH	204	297
	24	6074544	2000-06-13	REID, ET AL.	205	157
	25	6093291	2000-07-25	IZUMI, ET AL.	204	224
	26	6133061	2000-10-17	SONODA	438	69
	27	6162344	2000-12-19	REID, ET AL.	205	157
	28	6174425	2001-01-16	SIMPSON, ET AL.	205	96
	29	6197181	2001-03-06	CHEN	205	123
	30	6179983	2001-01-30	REID, ET AL.	205	96
	31	6203582	2001-03-20	BERNER, ET AL.	29	25.01
	32	6203684	2001-03-20	TAYLOR, ET AL.	205	103
	33	6210555	2001-04-03	TAYLOR, ET AL.	205	103
	34	6224737	2001-05-01	TSAI, ET AL.	205	123
	35	6251236	2001-06-26	STEVENS	204	224
	36	6254760	2001-07-03	SHEN, ET AL.	205	335
	37	6258220	2001-07-10	DORDI, ET AL.	204	198
	38	6261433	2001-07-17	LANDAU	205	96
	39	6261733	2001-07-17	COPPENS, ET AL.	430	230
	40	6267853	2001-07-31	DORDI, ET AL.	204	232
	41	6277263	2001-08-21	CHEN	205	182
	42	6290833	2001-09-18	CHEN	205	182
	43	6303014	2001-10-16	TAYLOR, ET AL.	205	103
✓	44	6319384	2001-11-20	TAYLOR, ET AL.	205	103
ZM	45	6328410	2001-12-11	KAWASE, ET AL.	347	23

Remarks



Note: Remarks are not for responding to an office action.

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Signature


Examiner Name	Date
/Zulmariam Mendez/	05/17/2007



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Search string:		( 2742413 or 2882209 or 3627661 or 3649509 or 3727620 or 3770598 or 4027686 or 4065374 or 4092176 or 4110176 or 4113492 or 4120759 or 4120771 or 4129480 or 4315059 or 4326940 or 4336114 or 4376685 or 4396467 or 4405416 or 4428815 or 4435266 or 4489740 or 4496436 or 4510176 or 4518678 or 4519846 or 4693805 or 4732785 or 4789445 or 4869971 or 4891106 or 4898647 or 5039381 or 5055425 or 5092975 or 5155336 or 5162260 or 5178813 or 5222310 or 5224504 or 5230743 or 5252807 or 5256274 or 5259407 or 5290361 or 5302256 or 5316974 or 5328589 or 5349978 ).pn.						
US Patent Documents								
Note: Applicant is not required to submit a paper copy of cited US Patent Documents								
init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass	
/ZM/	1	2742413	1956-04-17	CRANSBERG, ET AL.		224	533	
	2	2882209	1959-04-14	BROWN, ET AL.		205	297	
	3	3627661	1971-12-14	GORDON, ET AL.		204	474	
	4	3649509	1972-03-14	MORAWETZ, ET AL.		204	238	
	5	3727620	1973-04-17	ORR		134	95.2	
	6	3770598	1973-11-06	CREUTZ		205	296	
	7	4027686	1977-06-07	SHORTES, ET AL.		134	33	
	8	4065374	1977-12-27	ASAMI, ET AL.		204	228.6	
	9	4092176	1978-05-30	KOZAI, ET AL.		134	186	
ZM/	10	4110176	1978-08-29	CREUTZ, ET AL., DECEASED		204	52	



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ZM	11	4113492	1978-09-12	SATO, ET AL.	96	67
	12	4120759	1978-10-17	ASAMI, ET AL.	204	14
	13	4120771	1978-10-17	DEWALLENS	204	225
	14	4129480	1978-12-12	ROBERT	204	1
	15	4315059	1982-02-09	RAISTRICK, ET AL.	429	112
	16	4326940	1982-04-27	ECKLES, ET AL.	204	232
	17	4336114	1982-06-22	MAYER, ET AL.	204	52
	18	4376685	1983-03-15	WATSON	204	52
	19	4396467	1983-08-02	ANTHONY	204	15
	20	4405416	1983-09-20	RAISTRICK, ET AL.	204	68
	21	4428815	1984-01-31	POWELL, ET AL.	204	297
	22	4435266	1984-03-06	JOHNSTON	204	276
	23	4489740	1984-12-25	RATTAN, ET AL.	134	140
	24	4496436	1985-01-29	INOUE	205	23
	25	4510176	1985-04-09	CUTHBERT, ET AL.	427	82
	26	4518678	1985-05-21	ALLEN	430	311
	27	4519846	1985-05-28	AIGO	134	15
	28	4693805	1987-09-15	QUAZI	204	192.22
	29	4732785	1988-03-22	BREWER	427	240
	30	4789445	1988-12-06	GOFFMAN, ET AL.	204	114
	31	4869971	1989-09-26	NEE, ET AL.	428	635
	32	4891106	1990-01-02	DOMNIKOV	204	30
	33	4898647	1990-02-06	LUCE, ET AL.	204	13
	34	5039381	1991-08-13	MULLARKEY	204	47.5
	35	5055425	1991-10-08	LIEBOVITZ, ET AL.	437	195
	36	5092975	1992-03-03	YAMAMURA, ET AL.	204	198
	37	5155336	1992-10-13	GRONET, ET AL.	219	411
	38	5162260	1992-11-10	LIEBOVITZ, ET AL.	437	195
	39	5178813	1993-01-12	AKATSU, ET AL.	204	210.7
	40	5222310	1993-06-29	THOMPSON, ET AL.	34	202
	41	5224504	1993-07-06	THOMPSON, ET AL.	134	155
	42	5230743	1993-07-27	THOMPSON, ET AL.	134	32
	43	5252807	1993-10-12	CHIZINSKY	219	390
	44	5256274	1993-10-26	PORIS	205	123
✓	45	5259407	1993-11-09	TUCHIDA, ET AL.	134	151
ZM	46	5290361	1994-03-01	HAYASHIDA, ET AL.	134	2



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## Remarks

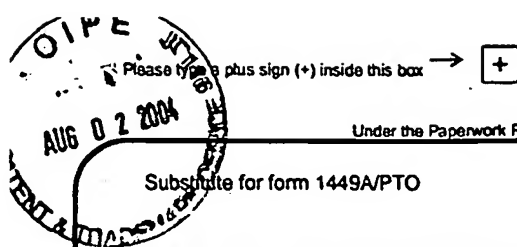
Note: Remarks are not for responding to an office action.

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## Signature

Examiner Name	Date
/Zulmariam Mendez/	05/17/2007





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PTO/SB/08a (08-03)

Approved for use through 07/31/2008, OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1

of 2

Application Number	10/823,840
Filing Date	APRIL 13, 2004
First Named Inventor	LUBOMIRSKY, ET AL.
Group Art Unit	1755 1709
Examiner Name	UNKNOWN /Zulmariam Mendez/
Attorney Docket Number	AMAT/8389/CMP/ECP/RKK
Submission Date	7/30/04

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	A1				

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
/ZM/	B1	DE 932709	09-08-1955	W Kampschulte & Cie Solingen D		
	B2	EP 1 160 846 A2	12-05-2001	Applied Materials, Inc.		
	B3	JP 4-131395	05-06-1992	Toshiba Corp.		
	B4	JP 4-280993	06-10-1992	Electroplating Eng. Of Japan Co.		
	B5	JP 6-017291	01-25-1994	NEC Corp.		
	B6	JP 4-141395	05-14-1992	Nachi Fujikoshi Corp.		
	B7	JP 5-205369	08-13-1993	NEC Corp.		
	B8	JP 53-086580	07-31-1978	Hitachi Ltd.		
	B9	JP 58-182823	10-25-1983	Nippon Denki KK		
	B10	JP 63-118093	05-23-1988	Tanaka Electron Ind. Co, Ltd.		
	B11	SU 443108	11-22-1968			
	B12	WO 97/12079	04-03-1997	Intel Corporation		
	B13	WO 99/25902	05-27-1999	Novellus Systems, Inc.		
	B14	WO 99/25903	05-27-1999	Reid, et al.		
	B15	WO 99/25904	05-27-1999	Novellus Systems, Inc.		
	B16	WO 99/25905	05-27-1999	Novellus Systems, Inc.		
	B17	WO 99/26275	05-27-1999	Novellus Systems, Inc.		
	B18	WO 99/47731	09-23-1999	Semitool, Inc.		
/ZM/	B19	WO 99/54527	10-28-1999	Applied Materials, Inc.		
	B20	WO 01/90446 A2	11-29-2001	Applied Materials, Inc.		

Examiner

/Zulmariam Mendez/

Date Considered

05/17/2007

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2. 291505\_1



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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 2

of 2

Application Number

10/823,840

Filing Date

APRIL 13, 2004

First Named Inventor

LUBOMIRSKY, ET AL.

Group Art Unit

1753 1709

Examiner Name

UNKNOWN /Zulmariam Mendez/

Attorney Docket Number

AMAT/8389/CMP/ECP/RKK

Submission Date

4/25/04

## **NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
/ZM/	C1	COLOMBO, "Wafer Back Surface Film Removal", Central R&D, SGS-Thomson Microelectronics, Agrate, Italy, Spin Tech Technology, 6 pages.	
	C2	HOLM, Electric Contacts Theory and Application, Fourth Completely Rewritten Edition, Springer-Verlag, New York Inc., August 21, 1967, 27 pages.	
	C3	PITNEY, "NEY Contact Manual", Electric Contacts for Low Energy Uses, 1973.	
	C4	SINGER, "Tantalum, Copper and Damascene: The Future of Interconnects," Semiconductor International, June 1998, Pages cover, pages 91-94, 96, & 98.	
	C5	SINGER, "Wafer Processing", Semiconductor International, June, 1998, page 70.	
	C6	Laurel Technologies Corporation from <a href="http://www.laurell.com">www.laurell.com</a> , "Two control configurations available- see WS 400 OR WS-400Lite." 1998, 6 pages.	
	C7	"Metallization & Interconnect", Semitool Products/Sales, October 27, 1998, 4 pages.	
	C8	PCT Written Opinion for US01/15200, dated February 05, 2004.	
	C9	PCT International Search Report for US01/15200, dated March 11, 2003.	
	C10	PCT International Search Report for US03/13111, dated November 03, 2003.	
	C11	Australian Patent Office Written Opinion from SG 9906158-2, Dated March 05, 2002.	
	C12	Graham, Kenneth A., <u>Electroplating Engineering Handbook</u> , 2 <sup>nd</sup> Edition, 1962. (Copy Not Available).	
V	C13	"Welcome to VERTEQ Online", <a href="http://www.verteq.com">www.verteq.com</a> , 5 pages.	
/ZM/	C14	Olgado, et al. "Stable Cell Platform", filed September 09, 2000; USSN 09/676,362.	

Examiner

/Zulmariam Mendez/

Date Considered

05/17/2007

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2. 291505\_1